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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/596,626   | 09/15/2006  | Karl-Heinz Schuster  | 01641/0204258-US0   | 8534             |
| 7278   | 7590        | 04/15/2009           | EXAMINER            |                  |
| DARBY & DARBY P.C.<br>P.O. BOX 770<br>Church Street Station<br>New York, NY 10008-0770 |             |                      | LESTER, EVELYN A    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2873                |                  |
|  |             |                      | MAIL DATE           | DELIVERY MODE    |
|  |             |                      | 04/15/2009          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/596,626 | <b>Applicant(s)</b><br>SCHUSTER ET AL. |  |
|                              | <b>Examiner</b><br>Evelyn A. Lester  | <b>Art Unit</b><br>2873                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/06; 1/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-10 and 15-18) in the reply filed on 12-15-08 is acknowledged.
2. Claims 11 and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12-15-08. Claims 13 and 14 were cancelled by the Applicant as originally filed on 6-19-06, by preliminary amendment.

### ***Specification***

3. The disclosure is objected to because of the following informalities:  
The status of the listed U.S. Patent application serial numbers, on pages 1 and 2, needs to be updated by amendment.  
Appropriate correction is required.

### ***Information Disclosure Statement***

4. The listing of some references (not listed on an IDS, such as the German Docs., i.e. DE 10 2004 051 7304.) in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states,

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"the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-3, 5-8, 10 and 115-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 21, 28, 30, 31, 45 and 46 of U.S. Patent No. 7,466,489 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application claimed invention is but an obvious variation of the patent claimed invention.

The application claimed invention recites an optical objective with a numerical aperture on the image side equal to or larger than 1.0, containing at least one lens of a

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crystal material from the group that consists of NaCl, KCl, KI, NaI, RbI, CsI, MgO, MgAl<sub>2</sub>O<sub>4</sub> and Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>. The patent claimed invention recites an optical objective having a plurality of optical elements, wherein at least one of those elements is a high index material, such as the crystalline material listed in claim 31 and wherein the image side numerical aperture NA is greater than 1.3, as noted in claim 46. It would have been obvious to one of ordinary skill in the art to provide the high index crystalline materials for at least one optical element and providing a numerical aperture on the image side of the optical system of greater than 1.0 (or in this case greater than 1.3), to reduce the structure widths, thereby reducing the size of the optical system.

With respect to application claim 2, note patent claim 21.

With respect to application claim 3, note patent claim 46.

With respect to application claim 5, note patent claim 21.

With respect to application claims 6 and 7, note patent claim 45. However, it is noted that to be so configured is without structural support and is therefore considered an employment of use. How a device is employed is not germane to its patentability.

With respect to application claim 8, note patent claim 21; and it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the given wavelengths, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, the given crystal materials have known operating wavelengths that correspond to the claimed values of claim 8.

With respect to application claim 10, note patent claim 21, for example.

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With respect to application claims 15 and 16, note patent claim 46. It has been held that discovering an optimum range of a result effective variable involves only routine skill in the art.

With respect to application claim 17, note patent claims 21 and 31, and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to application claim 18, note patent claims 21 and 31.

### ***Allowable Subject Matter***

7. Claims 4 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show or fairly suggest the claimed subject matter of a projection objective having the claimed structure and claimed limitations, wherein a rejection under 35 USC 102 or 103 would be improper. Please particularly note the combination of claimed elements and claimed limitations, including as recited in claim 4, wherein at least one lens of one of the named crystal materials has a moisture protection coating; and as recited in claim 9, wherein at least one of the lenses of one of

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the crystal materials named is composed of at least two lens components that are oriented with different crystallographic orientations.

Therefore, in light of the Applicants' amendments, the claimed subject matter is considered to be allowable as being novel and nonobvious over the prior art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M-F, subject to an increased flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Evelyn A. Lester/  
Primary Examiner, Art Unit 2873

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